U.S.S.N. 10/632,725

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In the Claims:

Please amend the claims as set forth in the following Listing of the Claims.

LISTING OF THE CLAIMS

Please cancel claims 1-58 and 70-117.

Claims 1-58 (Cancelled)

59. (Previously Presented) A method of assaying for a pathogen in a sample, said method comprising:

exciting said sample with radiation, said sample comprising

at least one pathogen;

at least one probe, and

at least one fluorescent tag;

measuring the fluorescence from a subvolume of said excited sample; and analyzing the fluctuations of said fluorescence that are due to the diffusion or flow of said pathogen through said subvolume.

60. (Currently Amended) A method of assaying for the presence of a pathogen in a sample, said method comprising:

exciting said sample with radiation, said sample comprising at least one probe capable of binding a predetermined pathogen, and

at least one first fluorescent tag;

measuring the fluorescence from a subvolume of said excited sample; analyzing the fluctuations of said fluorescence that are due to the diffusion or flow of said pathogen, when present, through said subvolume; and determining the presence or absence of said pathogen.

61. (Original) The method of claim 60, further comprising identifying said pathogen.